Amendments to the Claims

The current listing of the claims replaces all previous amendments and listings of the claims.

1.-13. (Canceled)

14. (Currently Amended) A camera apparatus, comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user within a camera screen;

an importance computation unit configured to determine levels of importance for respective areas of the image acquired by said camera unit in accordance with the detection by said line-of-sight detection unit; and

a number-of-gray-scale-level determining unit configured to ~~change a number~~ allocate area-dependent numbers of gray scale levels ~~for~~ to the respective areas of the image in response to the determination by the importance computation unit, thereby reducing a processing time required for processing less important areas of the image to reduce a total processing time required for processing an entirety of the image prior to storage of the image in memory.

15. (Previously Presented) The camera apparatus as claimed in claim 14, wherein said number-of gray-scale-level determining unit increases the number of gray scale levels in a first area compared with a second area that has a smaller level of importance than the first area.

16. (Currently Amended) A camera apparatus, comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user within a camera screen;

3

an importance computation unit configured to determine levels of importance for respective areas of the image acquired by said camera unit in accordance with the detection by said line-of-sight detection unit; and

a color interpolation processing unit configured to ~~change~~ apply area-dependent color interpolation processing ~~for~~ to the respective areas of the image in response to the determination by the importance computation unit, thereby reducing a processing time required for processing less important areas of the image to reduce a total processing time required for processing an entirety of the image prior to storage of the image in memory.

17. (Currently Amended) ~~The~~ A camera ~~device as claimed in claim 16~~ apparatus, comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user within a camera screen;

an importance computation unit configured to determine levels of importance for respective areas of the image acquired by said camera unit in accordance with the detection by said line-of-sight detection unit; and

a color interpolation processing unit configured to change color interpolation processing for the respective areas of the image in response to the determination by the importance computation unit,

wherein said color interpolation processing unit performs a first processing in a first area, and performs a second processing in a second area that has a smaller level of importance than the first area, the first processing generating an image having higher quality than the second processing, and the second processing being faster than this first processing.

18. (Currently Amended) A camera apparatus, comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user within a camera screen;

an importance computation unit configured to determine levels of importance for respective areas of the image acquired by said camera unit in accordance with the detection by said line-of-sight detection unit; and

a sharpness enhancement processing unit configured to ~~change~~ apply area-dependent sharpness enhancement processing ~~for~~ to the respective areas of the image in response to the determination by the importance computation unit, thereby reducing a processing time required for processing less important areas of the image to reduce a total processing time required for processing an entirety of the image prior to storage of the image in memory.

19. (Currently Amended) The camera ~~device~~ apparatus as claimed in claim 18, wherein the sharpness processing unit performs a first processing in a first area, and performs a second processing in a second area that has a smaller level of importance than the first area, the first processing generating an image having higher quality than the second processing, and the second processing being faster than the first processing.

20. (Currently Amended) A camera apparatus, comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user within a camera screen;

an importance computation unit configured to determine levels of importance for respective areas of the image acquired by said camera unit in accordance with the detection by said line-of-sight detection unit; and

a noise removal processing unit configured to ~~change~~ apply area-dependent noise removal processing ~~for~~ to the respective areas of the image in response to the determination by the importance computation unit, thereby reducing a processing time required for

processing less important areas of the image to reduce a total processing time required for

processing an entirety of the image prior to storage of the image in memory.

21. (Currently Amended) ~~The~~ A camera ~~device as claimed in claim 20~~ apparatus,

comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user

within a camera screen;

an importance computation unit configured to determine levels of importance for

respective areas of the image acquired by said camera unit in accordance with the detection

by said line-of-sight detection unit; and

a noise removal processing unit configured to change noise removal processing for

the respective areas of the image in response to the determination by the importance

computation unit,

wherein said noise removal processing unit performs a first processing in a first area,

and performs a second processing in a second area that has a smaller level of importance than

the first area, the first processing generating an image having higher quality than the second

processing, and the second processing being faster than the first processing.

22. (Currently Amended) A camera apparatus, comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user

within a camera screen;

an importance computation unit configured to determine levels of importance for

respective areas of the image acquired by said camera unit in accordance with the detection

by said line-of-sight detection unit; and

an image processing unit configured to perform at least one of ~~processing of changing~~

~~a number~~ assigning area-dependent numbers of gray scale levels ~~for~~ to the respective areas of

the image, ~~processing of changing~~ applying area-dependent color interpolation processing ~~for~~

to the respective areas of the image, ~~processing of changing~~ applying area-dependent

sharpness enhancement processing ~~for~~ to the respective areas of the image, and ~~processing of~~

~~changing~~ applying area-dependent noise removal processing ~~for~~ to the respective areas of the

image in response to the determination by the importance computation unit, thereby reducing

a processing time required for processing less important areas of the image to reduce a total

processing time required for processing an entirety of the image prior to storage of the image

in memory.

23. (Currently Amended) A method of acquiring an image, comprising the steps of:

acquiring an image;

detecting a point of eye fixation of a user within a camera screen;

determining levels of importance for respective areas of the acquired image in

accordance with the detection of the point of eye fixation; and

~~changing a number~~ assigning area-dependent numbers of gray scale levels ~~for~~ to the

respective areas of the image in response to the determined levels of importance, thereby

reducing a processing time required for processing less important areas of the image to

reduce a total processing time required for processing an entirety of the image prior to storage

of the image in memory.

24. (Currently Amended) A method of acquiring an image, comprising the steps of:

acquiring an image;

detecting a point of eye fixation of a user within a camera screen; determining levels

of importance for respective areas of the acquired image in accordance with the detection of

the point of eye fixation; and

~~changing~~ applying area-dependent color interpolation processing ~~for~~ to the respective

areas of the image in response to the determined levels of importance, thereby reducing a

processing time required for processing less important areas of the image to reduce a total

processing time required for processing an entirety of the image prior to storage of the image

in memory.

    25. (Currently Amended) A method of acquiring an image, comprising the steps of:

acquiring an image;

detecting a point of eye fixation of a user within a camera screen;

determining levels of importance for respective areas of the acquired image in

accordance with the detection of the point of eye fixation; and

    ~~changing~~ applying area-dependent sharpness enhancement processing ~~for~~ to the

respective areas of the image in response to the determined levels of importance, thereby

reducing a processing time required for processing less important areas of the image to

reduce a total processing time required for processing an entirety of the image prior to storage

of the image in memory.

    26. (Currently Amended) A method of acquiring an image, comprising the steps of:

acquiring an image;

detecting a point of eye fixation of a user within a camera screen;

determining levels of importance for respective areas of the acquired image in

accordance with the detection of the point of eye fixation; and

    ~~changing~~ applying area-dependent noise removal processing ~~for~~ to the respective

areas of the image in response to the determined levels of importance, thereby reducing a

processing time required for processing less important areas of the image to reduce a total

processing time required for processing an entirety of the image prior to storage of the image

in memory.

27. (New) A camera apparatus, comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user within a camera screen;

an importance computation unit configured to determine levels of importance for respective areas of the image acquired by said camera unit in accordance with the detection by said line-of-sight detection unit; and

a number-of-gray-scale-level determining unit configured to change a number of gray scale levels for the respective areas of the image in response to the determination by the importance computation unit, thereby simplifying processing for less important areas of the image compared to more important areas of the image based on comparison of the levels of importance of the less important areas of the image with the levels of importance of the more important areas of the image.

28. (New) The camera apparatus as claimed in claim 27, wherein said number-of-gray-scale-level determining unit increases the number of gray scale levels in a first area compared with a second area that has a smaller level of importance than the first area.

29. (New) A camera apparatus, comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user within a camera screen;

an importance computation unit configured to determine levels of importance for respective areas of the image acquired by said camera unit in accordance with the detection by said line-of-sight detection unit; and

a color interpolation processing unit configured to change color interpolation processing for the respective areas of the image in response to the determination by the

importance computation unit, thereby simplifying processing for less important areas of the image compared to more important areas of the image based on comparison of the levels of importance of the less important areas of the image with the levels of importance of the more important areas of the image.

30. (New) The camera device as claimed in claim 29, wherein said color interpolation processing unit performs first processing in a first area, and performs second processing in a second area that has a smaller level of importance than the first area, the first processing generating an image having higher quality than the second processing, and the second processing being faster than the first processing.

31. (New) A camera apparatus, comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user within a camera screen;

an importance computation unit configured to determine levels of importance for respective areas of the image acquired by said camera unit in accordance with the detection by said line-of-sight detection unit; and

a sharpness enhancement processing unit configured to change sharpness enhancement processing for the respective areas of the image in response to the determination by the importance computation unit, thereby simplifying processing for less important areas of the image compared to more important areas of the image based on comparison of the levels of importance of the less important areas of the image with the levels of importance of the more important areas of the image.

32. (New) The camera device as claimed in claim 31, wherein the sharpness processing unit performs first processing in a first area, and performs second processing in a second area that has a smaller level of importance than the first area, the first processing

generating an image having higher quality than the second processing, and the second

processing being faster than the first processing.

33. (New) A camera apparatus, comprising:

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user

within a camera screen;

an importance computation unit configured to determine levels of importance for

respective areas of the image acquired by said camera unit in accordance with the detection

by said line-of-sight detection unit; and

a noise removal processing unit configured to change noise removal processing for

the respective areas of the image in response to the determination by the importance

computation unit, thereby simplifying processing for less important areas of the image

compared to more important areas of the image based on comparison of the levels of

importance of the less important areas of the image with the levels of importance of the more

important areas of the image.

34. (New) The camera device as claimed in claim 33, wherein said noise removal

processing unit performs first processing in a first area, and performs second processing in a

second area that has a smaller level of importance than the first area, the first processing

generating an image having higher quality than the second processing, and the second

processing being faster than the first processing.

35. (New) A camera apparatus, comprising;

a camera unit configured to acquire an image;

a line-of-sight detection unit configured to detect a point of eye fixation of a user

within a camera screen;

an importance computation unit configured to determine levels of importance for

respective areas of the image acquired by said camera unit in accordance with the detection

by said line-of-sight detection unit; and

an image processing unit configured to perform at least one of changing a number of

gray scale levels for the respective areas of the image, changing color interpolation

processing for the respective areas of the image, changing sharpness enhancement processing

for the respective areas of the image, and changing noise removal processing for the

respective areas of the image in response to the determination by the importance computation

unit, thereby simplifying processing for less important areas of the image compared to more

important areas of the image based on comparison of the levels of importance of the less

important areas of the image with the levels of importance of the more important areas of the

image,

36. (New) The camera apparatus as claimed in claim 35, wherein said importance

computation unit is configured to determine a single point as an area of importance based on

the point of eye fixation and to determine the levels of importance in response to a distance

between the area of importance and respective points in the image.

37. (New) The camera apparatus as claimed in claim 35, wherein said importance

computation unit is configured to determine an area of importance based on the point of eye

fixation and to determine the levels of importance according to a distribution defined by a

position relative to a center of the area of importance, a size of the area of importance, and a

magnitude at the center of the area of importance.

38. (New) The camera apparatus as claimed in claim 37, wherein said area of

importance has one of a circle shape and an ellipse shape.

39. (New) The camera apparatus as claimed in claim 35, wherein said importance

computation unit is configured to determine at least two areas of importance in accordance

with the detection by said line-of-sight detection unit and to determine a level of importance

of any given point in response to a distance between the given point and a first one of said at

least two areas of importance and a distance between the given point and a second one of said

at least two areas of importance.

40. (New) A method of acquiring an image, comprising the steps of:

acquiring an image;

detecting a point of eye fixation of a user within a camera screen;

determining levels of importance for respective areas of the acquired image in

accordance with the detection of the point of eye fixation; and

changing a number of gray scale levels for the respective areas of the image in

response to the determined levels of importance, thereby simplifying processing for less

important areas of the image compared to more important areas of the image based on

comparison of the levels of importance of the less important areas of the image with the

levels of importance of the more important areas of the image.

41. (New) A method of acquiring an image, comprising the steps of:

acquiring an image;

detecting a point of eye fixation of a user within a camera screen;

determining levels of importance for respective areas of the acquired image in

accordance with the detection of the point of eye fixation; and

changing color interpolation processing for the respective areas of the image in

response to the determined levels of importance, thereby simplifying processing for less

important areas of the image compared to more important areas of the image based on

comparison of the levels of importance of the less important areas of the image with the

levels of importance of the more important areas of the image.

42. (New) A method of acquiring an image, comprising the steps of:

acquiring an image;

detecting a point of eye fixation of a user within a camera screen;

determining levels of importance for respective areas of the acquired image in accordance with the detection of the point of eye fixation; and

changing sharpness enhancement processing for the respective areas of the image in response to the determined levels of importance, thereby simplifying processing for less important areas of the image compared to more important areas of the image based on comparison of the levels of importance of the less important areas of the image with the levels of importance of the more important areas of the image.

43. (New) A method of acquiring an image, comprising the steps of:

acquiring an image;

detecting a point of eye fixation of a user within a camera screen;

determining levels of importance for respective areas of the acquired image in accordance with the detection of the point of eye fixation; and

changing noise removal processing for the respective areas of the image in response to the determined levels of importance, thereby simplifying processing for less important areas of the image compared to more important areas of the image based on comparison of the levels of importance of the less important areas of the image with the levels of importance of the more important areas of the image.